

What is claimed is:

1. A dynamic quantity sensor comprising:

a sensor board including a movable portion at one surface side thereof and a silicon layer at another surface side thereof, wherein the movable portion is displaced under application of a dynamic quantity and the silicon layer is separated from the movable portion by an insulator; and

a circuit board for transmitting to and receiving electrical signals from the sensor board, wherein the circuit board is disposed to confront the one surface of the sensor board through a gap portion and to cover the movable portion, and the sensor board and the circuit board are bonded to each other around the gap portion so that a bonding portion is formed that substantially surrounds the gap portion.

2. The dynamic quantity sensor according to claim 1, wherein the sensor board and the circuit board are sealingly wrapped by mold material.

3. The dynamic quantity sensor according to claim 1, wherein:

a recess portion is formed on a surface of the circuit board facing the sensor board to thereby form the gap portion; and

the bonding portion is formed at sites other than the recess portion on the circuit board.

4. The dynamic quantity sensor according to claim 1, wherein the sensor board is designed to have a plurality of movable portions formed on one surface thereof, and the circuit board covers each of the plurality of movable portions through the gap portion.

5. The dynamic quantity sensor according to claim 1, further comprising a lead frame for transmitting electrical signals to an exterior, wherein the sensor board is bonded to the lead frame on another surface opposite to the one surface of the sensor board facing the circuit board.

6. The dynamic quantity sensor according to claim 1, further comprising a lead frame for transmitting the electrical signals to an exterior, wherein an overhang area that does not face the sensor board and that overhangs from the sensor board is equipped on the surface of the circuit board that faces the sensor board, and the lead frame is bonded to the overhang area on the circuit board.

7. The dynamic quantity sensor according to claim 1, wherein an overhang area that does not face the sensor board and that overhangs from the sensor board is equipped on the surface of the circuit board that faces the sensor board, and a separate board separated from the sensor board is equipped to the overhang area on the circuit board so that the circuit board is supported by the separate board.

8. The dynamic quantity sensor according to claim 1, wherein the sensor board and the circuit board are electrically connected to each other by bonding wires.

9. The dynamic quantity sensor according to claim 1, wherein the sensor board and the circuit board are sealingly wrapped by mold material.

10. The dynamic quantity sensor according to claim 9, wherein the sensor board and the circuit board are sealed by soft material softer than the mold material, and the outside of the soft material is wrapped by the mold material.

11. The dynamic quantity sensor according to claim 10, wherein:

a recess portion is formed on a surface of the circuit board facing the sensor board to thereby form the gap portion; and

the bonding portion is formed at sites other than the recess portion on the circuit board.

12. The dynamic quantity sensor according to claim 10, wherein the sensor board is designed to have a plurality of movable portions formed on one surface thereof, and the circuit board covers each of the plurality of movable portions through the gap portion.

13. The dynamic quantity sensor according to claim 12, wherein a rim portion abutting against the sensor board is formed at a site on the circuit board facing areas other than the area having the plurality of movable portions formed therein on the sensor board.

14. The dynamic quantity sensor according to claim 9, wherein:

a recess portion is formed on a surface of the circuit board facing the sensor board to thereby form the gap portion; and

the bonding portion is formed at sites other than the recess portion on the circuit board.

15. The dynamic quantity sensor according to claim 9, wherein the sensor board is designed to have a plurality of movable portions formed on one surface thereof, and the circuit board covers each of the plurality of movable portions through the gap portion.

16. The dynamic quantity sensor according to claim 15, wherein a rim portion abutting against the sensor board is formed at a site on the circuit board which faces areas other than the area having the plurality of movable portions formed therein on the sensor board.

17. The dynamic quantity sensor according to claim 9, further comprising a lead frame for transmitting the electrical signals to an exterior, wherein an overhang area that does not face the sensor board and that overhangs from the sensor board is equipped on the surface of the circuit board that faces the sensor board, and the lead frame is bonded to the overhang area on the circuit board.

18. The dynamic quantity sensor according to claim 9, wherein an overhang area that does not face the sensor board and that overhangs from the sensor board is equipped on the surface of the circuit board that faces the sensor board, and a separate board separated from the sensor board is equipped to the overhang area on the circuit board so that the circuit board is supported by the separate board.

19. The dynamic quantity sensor according to claim 9, wherein a plurality of sensor boards is bonded to the circuit board.

20. A dynamic quantity sensor comprising:
a sensor board including a movable portion at one surface side thereof, wherein the movable portion is displaced under application of a dynamic quantity; and
a circuit board for transmitting to and receiving electrical signals from the sensor board, wherein the circuit board is disposed so as to confront one surface of the sensor

board through a gap portion and to cover the movable portion, and wherein the sensor board and the circuit board are partially bonded to each other around the gap portion.